

TOP SECRET

25X1A

██████-0200-64
Copy 5 of 7

7 AUG 1964

MEMORANDUM FOR: Executive Director

SUBJECT: Scientific and Technical Efforts in the Foreign Intelligence Field

REFERENCE: Action Memorandum No. A-406 dated 10 July 1964, same subject

It is suggested that the reply to Mr. Bundy's memorandum of 3 July 1964 include the attached. You will note that this reply deals with activities within the CIA and does not answer the request in the memo for a coordinated report on paragraph 13 of the PFIAB recommendations of 3 March. We have, however, coordinated this memorandum with ████████ of NIPE, whom we understand is handling that report.

25X1A

25X1A

ALBERT D. WHEELON
Deputy Director
for
Science and Technology

Attachment:
A/S

Distribution:
Copy 1 & 2 - Executive Director
3 - Executive Registry
4 - Dr. Wheelon
5 - PP/DD/S&T
6 & 7 - DD/S&T Registry

25X1A

25X1A

HANDLE VIA
██████ TALENT-KEYHOLE-COMINT
CONTROL SYSTEMS JOINTLY.

TOP SECRET

GROUP 1
Excluded from automatic
downgrading and
declassification

TOP SECRET

Approved For Release 2000/08/26 : CIA-RDP71R00140A000100030004-9



CENTRAL INTELLIGENCE AGENCY

WASHINGTON 25, D. C.

OFFICE OF THE DIRECTOR

18 Aug

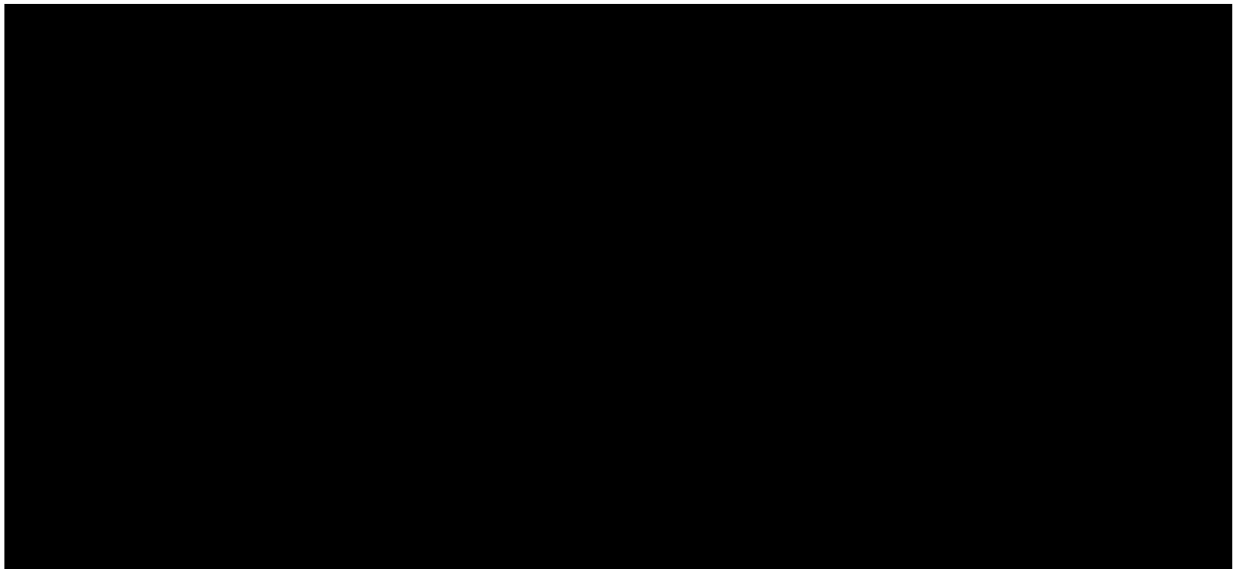
MEMORANDUM FOR: Special Assistant to the President for
National Security Affairs

SUBJECT: Scientific and Technical Efforts in the
Foreign Intelligence Field

REFERENCE: Your Memorandum to DCI dated 8 July 1964,
same subject

1. I am in reply to that portion of your memorandum of 8 July in which you requested an updating of information on the progress of the Agency in S&T fields. My memorandum submitted in December 1963 and June 1964 gave considerable detail on the structure, staffing, consultants, and advisory boards formed to carry out the Board recommendation that "top priority be given to the creation, organization, and exploitation of new resources in science and technology for use in intelligence activities..." At this time, it seems appropriate that, for the meeting of the Board to be held in August, I discuss substantive activities. In so doing, I will refer to Figure I which displays the units of organization of the new Directorate of Science and Technology against a background of the classic functional elements of the intelligence process.

ILLEGIB



ORAC-04/A
COPY 9 11

25X1A
XERO

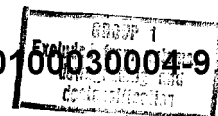
HANDLE VIA

TALENT KEYHOLE COMINT

XERO COPY

TOP SECRET

Approved For Release 2000/08/26 : CIA-RDP71R00140A000100030004-9



TOP SECRET

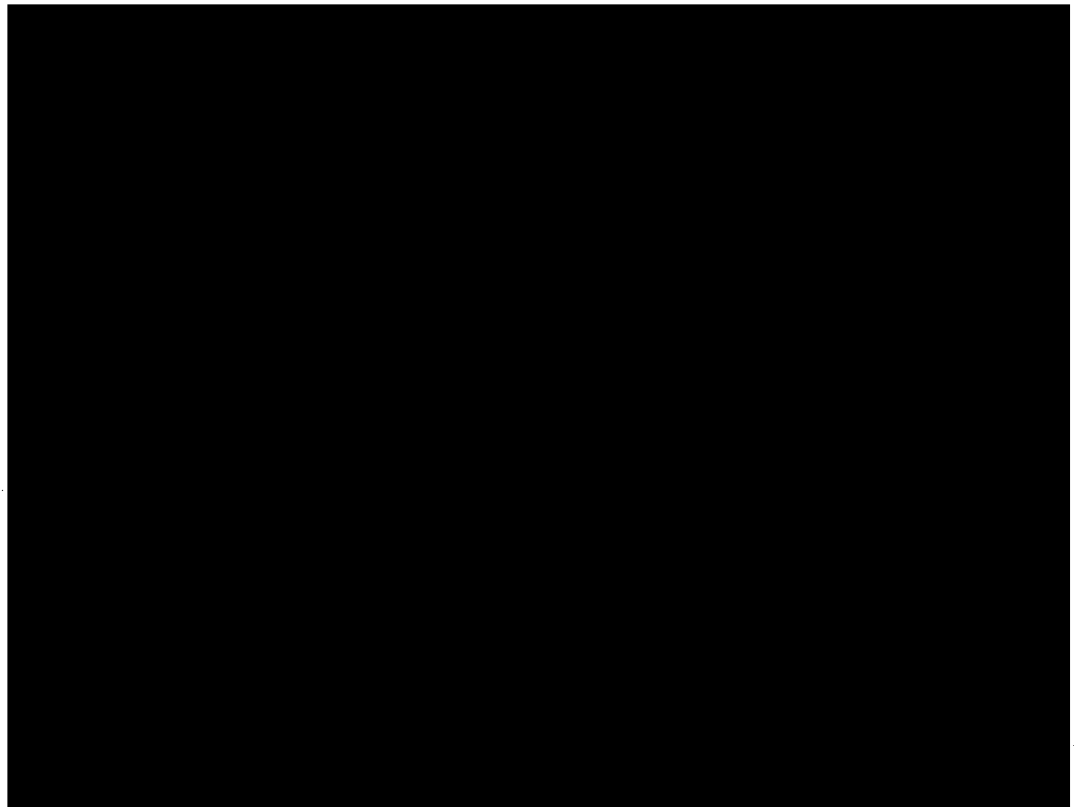
25X1A

0200-64/A

SUBJECT: Scientific and Technical Efforts in the
Foreign Intelligence Field

Both of the above projects embody new concepts and will couple the most advanced technologies in several scientific and engineering fields to intelligence collection operations.

3. Office of Research and Development - The ORD is expanding its area of review for the by-products of basic research in space, military, and nuclear fields that have intelligence applications. In addition, they are originating some efforts in a few fields where evolutionary improvements of proven intelligence gathering equipments and techniques are blocked by a lack of fundamental knowledge. Some of the more active ORD interests are:



25X1D

-2-

XERO
COPY

25X1A

HANDLE VIA

TALENT-KEYHOLE-COMINT

TOP SECRET

25X1D

Approved For Release 2000/08/26 : CIA-RDP71R00140A000100030004-9

Next 2 Page(s) In Document Exempt

Approved For Release 2000/08/26 : CIA-RDP71R00140A000100030004-9

25X1A

0200-64/A

SUBJECT: Scientific and Technical Efforts in the Foreign Intelligence Field

5. Office of Special Activities - The OSA is the principal operational unit of the DD/S&T and works continually to expand its capabilities for overhead reconnaissance of all types. Aside from increasing its utilization of the sub-sonic U-2 system, it is participating in the development of supersonic aircraft and space vehicles as collection platforms. Most of the work done by OSA falls under Program B of the National Reconnaissance Program. PFIAB is briefed and has been furnished periodic reports on the activities of this Office.

6. Office of Scientific Intelligence - The OSI is the scientific and technical intelligence-producing element of DD/S&T and continues to provide across-the-board reports and briefings on Sino-Soviet Bloc capabilities in science and technology. Their reports range from individual technical reports to contributions for major national intelligence estimates (Soviet Atomic Energy Program, Soviet Capabilities for Strategic Attack, etc.) produced by the Office of National Estimates. We are increasing both the quantity and quality of OSI reports through utilization of contractors, internal and external training programs, and the re-orientation of activities so as to target our activities against more complex systems and problems.

7. Foreign Missile and Space Analysis Center - FMSAC continues to build toward its objective as the central government source for reporting on foreign missile range and space activities throughout the world. Its present strength is [redacted] and we anticipate growth to about [redacted] during this Fiscal Year. Many of FMSAC's operations are being designed into computer format in order to provide automated storage and retrieval of data. In addition, this group is staffing with personnel technically qualified to take advantage of the many and diverse opportunities afforded by the scientific computation capacity of the Office of Computer Services.

The control room of FMSAC is now in operation 24 hours a day, receiving all source information and publishing daily summaries of missile and space activities and more comprehensive reports which "wrap up" all known data on each important event.

25X1A

25X1A

XERO COPY

XERO COPY

25X1A

XERO HANDLE VIA

~~TOP SECRET~~

25X1A

0200-64/A

SUBJECT: Scientific and Technical Efforts in the Foreign Intelligence Field

25X1D

8. Office of Computer Services - The OCS is broadening its capability in order to provide the Agency with a scientific computation capability. This support is needed to provide FMSAC, OEL, and OSI with means for trajectory analysis of Soviet firings, programs for ELINT and RADINT analysis, and for simulation and systems evaluation work. Within the past month, Computer Services has been called upon by OEL alone to: (a) generate a complex display/plot of an airborne ELINT mission; (b) simulate "play" between Soviet radar signals and the intercept problem (environment, operational factors, vehicle vulnerability) to determine the degree of success which we might expect from ELINT collection systems [redacted]; (c) develop programs for the processing of ELINT data from enemy phased array radar systems; and (d) complete a program for the storage and retrieval of some specialized ELINT data to be stored on cards.

9. While there is still much to be done in channeling science and technology into the CIA and developing it toward intelligence needs, I feel that FY 64 has been a year of progress. In particular, the Agency has been organized and prepared to attract well-qualified scientists and engineers into the organization and to seek out from among the Government and industrial research laboratories the results of basic research and advanced concepts which we can relate to the Agency mission.

John A. McCone
Director

cc: President's Foreign Intelligence
Advisory Board

-7-

XERO
COPY

~~TOP SECRET~~

25X1A

XERO
COPY
HANDLE VIA

TOP SECRET 25X1A

██████████ 0200-64/A

SUBJECT: Scientific and Technical Efforts in the
Foreign Intelligence Field

Distribution:

- Copy 1 & 2 - Addressee
- 3 - PFIAB
- 4 - DCI
- 5 - DDCI
- 6 - Exec. Dir.
- 7 - Exec. Registry
- 8 - Dr. Wheelon
- 9 - PP/DD/S&T
- 10 & 11 - DD/S&T Registry

DD/S&T:hjb:7597

25X1A

HANDLE VIA
██████████ TALENT-KEYHOLE-COMINT
CONTROL SYSTEMS JOINTLY

TOP SECRET

XERO
COPY

XERO
COPY

XERO
COPY

SECRET



Functional Description of DD/S&T

REQUIREMENTS

**RESEARCH &
PRELIM. DESIGN**

DEVELOPMENT

OPERATIONS

DATA REDUCTION

ANALYSIS

ESTIMATES

SYSTEMS ANALYSIS STAFF

RESEARCH & DEVELOPMENT

SPECIAL ACTIVITIES

ELINT

COMPUTER SERVICES

ONE

FOREIGN MIS. & SPACE ANAL. CTR.

FIGURE I

SCIENTIFIC INTELLIGENCE

SECRET